

(f) calculating a magnitude of a damping force to be applied to said user in real space in response to said haptic interface location and said fiducial object location in graphic space, further comprising the steps of:

- (i) associating a damping coefficient with each of said nodes of each said planar surface;
- (ii) determining on which of said planar surfaces said fiducial object is located; and
- (iii) computing a damping coefficient of said fiducial object location by interpolating said damping coefficients associated with said nodes of each of said planar surfaces on which said fiducial object is located.

83. (New) A method for determining forces to be applied to a user through a haptic interface, said method comprising the steps of:

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- (a) generating a representation of an object in graphic space by defining said object as a mesh of planar surfaces, each of said planar surfaces comprising nodes;
 - (b) sensing a position of a user in real space;
 - (c) determining a haptic interface location in graphic space in response to said position of said user in real space;
 - (d) determining a fiducial object location in graphic space;
 - (e) calculating a stiffness force to be applied to said user in real space in response to said haptic interface location and said fiducial object location in graphic space; and
 - (f) calculating a direction of a damping force to be applied to said user in real space in response to said haptic interface location and said fiducial object location in graphic space, further comprising the steps of:

- (i) associating a surface normal with each of said nodes of each said planar surface;
- (ii) determining on which of said planar surfaces said fiducial object is located; and